

CLAIMS

1. Method for cleaning a transport belt, comprising the steps of:

5 positioning a solvent-bearing cleaning web in non-contacting juxtaposition to a transport surface of the belt;

positioning a dry cleaning web downstream of the cleaning web in non-contacting juxtaposition to the transport surface of the belt; and

10 selectively repositioning both the solvent-bearing cleaning web and the dry cleaning web into contact with the surface.

2. The method as set forth in claim 1, further comprising

15 the step of:

during a cleaning cycle, moving the belt transport surface in a first direction and moving at least one web in contact with the transport surface in an opposite direction.

20 3. The method as set forth in claim 1, comprising the further step of:

during a cleaning cycle, dispensing a cleaning fluid onto at least one region of the solvent-bearing cleaning web in contact with the transport surface.

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4. The method as set forth in claim 3, comprising the further step of:

engaging an opposing surface of the belt with at least one absorbent material wiper contraposed to at least one web
5 in contact with the transport surface.

5. The method as set forth in claim 4, the step of engaging further comprising:

pressing regions of the solvent-bearing cleaning web
10 against the belt such that the solvent passes through perforations in the belt and is received by the wiper.

6. The method as set forth in claim 2, further comprising the step of:

15 following a cleaning cycle, disengaging each web from the transport surface, and advancing each web such that an unused region of web material is positioned in non-contacting juxtaposition to the transport surface of the belt.

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7. The method as set forth in claim 2, comprising the step of:

independently advancing each web bringing fresh sections into contact with the transport surface of the
25 belt.

8. A transport belt cleaning apparatus comprising:
 first web means for wet cleaning mounted adjacently an
 outer surface of the belt;
 mounted downstream of the first web means, second web
5 means for dry cleaning the outer surface;
 means for selectively engaging the first and second web
means with the outer surface.

9. The apparatus as set forth in claim 8, the first web
10 means comprising:
 a roll of solvent-bearing web material having a first
span region extended and adjacently spaced from a
transporting surface of the belt, and
 a take-up spool attached to the solvent-bearing web
15 material upstream of the first span region.

10. The apparatus as set forth in claim 9, the second web
means comprising:
 a roll of absorbent web material having a second span
20 region extended and adjacently spaced from a transporting
surface of the belt, and
 a take-up spool attached to the absorbent web material
upstream of the second span region.

11. The apparatus as set forth in claim 9, comprising:
means for dispensing cleaning solvent into the first
span region.

5 12. The apparatus as set forth in claim 8, further
comprising:

in juxtaposition to the first web means, an absorbent
material first wiper mounted adjacently spaced from an inner
surface of the belt.

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13. The apparatus as set forth in claim 8, the means for
selectively engaging further comprising:

associated with each web means, a lift, and
mounted in the lift, at least one pressure pad
15 positioned for engaging the respective span region of the
associated web means such that the pad exerts a force across
one side of the web means span region to cause a contact
pressure of an opposing side of the web against the outer
surface of the belt.

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14. The apparatus as set forth in claim 8, comprising:
each the web is a consumable.

25 15. The apparatus as set forth in claim 12, comprising:
the first wiper is a consumable piece-part.

16. The apparatus as set forth in claim 8, further comprising:

in juxtaposition to the second web means, an absorbent material second wiper mounted adjacently spaced from an
5 inner surface of the belt.

17. The apparatus as set forth in claim 16, comprising:
the second wiper is a consumable piece-part.

10 18. The apparatus as set forth in claim 13, comprising:
each the pressure pad is a consumable.

20. An ink-jet hard copy apparatus comprising:
a transport belt for media input-output;
15 a belt inner-surface cleaner; and
a belt outer-surface cleaner, including a first movable wet web and a second movable dry web mounted downstream of the wet web, wherein the inner-surface cleaner and outer-surface cleaner are releasably engagable with the belt.

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21. The apparatus as set forth in claim 20, comprising:
each web is replaceable.

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22. The apparatus as set forth in claim 20, further comprising:

a solvent dispensing subsystem for wetting at least one region of the wet web such that the web imposes solvent onto
5 the belt outer surface.

23. The apparatus as set forth in claim 20, comprising:

the wet web bearing a belt cleaning solvent, and
the means for engaging providing a sufficient pressure
10 for causing solvent to be passed through perforations of the
belt and absorbed by the inner surface cleaner.

24. The apparatus as set forth in claim 20, comprising:

the inner-surface cleaner is refurbishable with a
15 replacement wiping member.

25. The apparatus as set forth in claim 20, comprising:

the outer-surface cleaner is refurbishable with
replacement webs.

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26. The apparatus as set forth in claim 20, comprising:

each web is a reusable roll of material releasably
mounted between a tensioner and a take-up spool such that a
stretched region of each web between the tensioner and spool
25 provides sequential cleaning spans adjacent the outer-
surface of the belt.

27. Method for re-furbishing an ink-jet printer having a vacuum belt cleaning apparatus comprising the steps of:
removing the cleaning apparatus; and
replacing the cleaning apparatus.

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28. The method as set forth in claim 27, the step of replacing the cleaning apparatus comprising:
replacing members of each cleaning apparatus that are deteriorated from contact with the belt.

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29. Consumable ink-jet vacuum belt cleaning apparatus comprising:
mounts for positioning cleaners in contraposition to each side of the belt; and
15 cleaners affixed to the mounts.

30. The apparatus as set forth in claim 29, comprising:
the cleaners are releasably affixed to the mounts and individually replaceable.

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31. An ink-jet hard copy apparatus endless-loop, vacuum-actuated, media transport belt cleaning system comprising:
a renewable first belt cleaning subsystem mounted adjacent an inner surface of the belt, including at least 25 one belt wiper; and
a renewable second belt cleaning subsystem mounted

adjacent an outer surface of the belt, including a first web, bearing a belt cleaning solvent and, downstream of the one web, a second web fabricated of material for absorbing the cleaning solvent, wherein the first belt cleaning 5 subsystem and second belt cleaning subsystem are contraposed with the belt therebetween and are selectively engagable and disengagable with the respective inner surface and outer surface.

10 32. The system as set forth in claim 31, comprising:
a belt cleaning solvent dispenser fluidically coupled to a region of the first web.

15 33. The system as set forth in claim 32, comprising:
the dispenser is refillable.

34. The system as set forth in claim 32, comprising:
the dispenser is replaceable.